Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte JORMA TAIJONLAHTI
and
MIKAEL OLLIKAINEN

Appeal No. 2000-1354
Application No. 08/894,129

ON BRIEF

Before FRANKFORT, STAAB, and NASE, Administrative Patent Judges.

NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the refusal of the examiner to allow claims 14 to 33, as amended subsequent to the final rejection. Claims 34 to 38, the only other claims pending in this application, have been withdrawn from consideration under 37 CFR § 1.142(b) as being drawn to a nonelected invention.

We REVERSE.

BACKGROUND

The appellants' invention relates to a sheet metal work center (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

The prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Morita	5,325,755	July 5, 1994

Claims 14 to 33 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Morita.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the first Office action (Paper No. 6, mailed July 24, 1998) and the answer (Paper No. 18, mailed October 25, 1999) for the examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 17, filed October 4, 1999) and reply brief (Paper No. 19, filed December 21, 1999) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art reference, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

Initially we note that anticipation by a prior art reference does not require either the inventive concept of the claimed subject matter or the recognition of inherent properties that may be possessed by the prior art reference. See Verdegaal Bros. Inc. v. Union Oil Co., 814 F.2d 628, 633, 2 USPQ2d 1051, 1054 (Fed. Cir.), cert. denied, 484 U.S. 827 (1987). A prior art reference anticipates the subject matter of a claim when the reference discloses every feature of the claimed invention, either explicitly or inherently (see Hazani v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed. Cir. 1997) and RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984)); however, the law of anticipation does not require

that the reference teach what the appellants are claiming, but only that the claims on appeal "read on" something disclosed in the reference (see Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984)).

Morita discloses a punch press including an upper main shaft (3) vertically movable by means of a hydraulic driving means (2_1, 2_2, 3a) and rotatable for indexing by means of a rotary driving means (7, 8, 9), a lower main shaft (30) positioned below the upper main shaft and rotatable in synchronism with the upper main shaft for indexing, upper and lower dies (23, 45) detachably mounted on the upper and lower main shafts in opposition to each other, and upper and lower clamping devices for clamping the upper and lower dies on the upper and lower main shafts (3, 30) with positioning in phase.

As shown in Figure 3 of Morita, the lower main shaft 30 is supported on the main body frame 1 via a sliding bearing 31 for rotation and sliding vertical movement. A ring 38 is

fixed to the lower end of the lower main shaft 30. A yoke 41 is engaged on the outer periphery of the ring 38. The yoke 41 is supported by a lift cylinder 39 for vertical movement along a guide rod 40. Therefore, the lower main shaft 30 can be driven vertically by the lift cylinder 39. A lower die assembly 45 is mounted on the upper end of the lower main shaft 30 and a die 45a is provided on the lower die assembly 45 for punching a work piece 46 between a punch 23d of the upper die assembly 23.

Morita sets forth the operation of his punch press (column 5, lines 1-68) as follows:

> Next, the operation will be discussed with reference to FIGS. 2 and 3. FIG. 1 shows the condition before punching the work piece 46 between the punch 23d provided in the upper die assembly 23 and the die 45a provided in the lower die assembly 45. When the hydraulic pressure is supplied to the upper pressure chamber 2_1, the upper main shaft 3 is lowered from the illustrated position so as to initially bring the elastic stripper 24 onto the upper surface of the work 26. Further downward movement of the upper main shaft 3, compresses the elastic stripper 24 and the work 46 is punched between the punch 23d and the die 45a.
>
> Subsequently, by supplying hydraulic pressure to the lower pressure chamber 2_2, the upper main shaft 3 is driven upwardly. Upon the upward movement of the upper main shaft 3, the elastic stripper 24 returns to its

original shape and the punch 23d is withdrawn from engaging the work piece 46. A punched piece 46a punched from the work 46 drops through the hollow hole 30b of the lower main shaft 30 to reach a transporting device 49, such as a conveyor and is removed.

By repeating the foregoing operation, punching of the work piece 46 can be sequentially carried out. When a phase of a shaped die is to be changed, the upper and lower main shafts 3 and 30 are driven to rotate in synchronism with each other by the rotary driving power source via the worms 9 and 36 and the worm wheels 8 and 34.

By this, punching by the shaped die with a change phase can be done easily. Also, it becomes possible to perform punching of complicated configurations by sequential phase division.

Discussion will be given herebelow with respect to exchanging of the upper and lower dies 23 and 45. At first, the piston 3a in the cylinder 2 is positioned at a substantially intermediate position in the cylinder 2 as shown in FIG. 1. At this time, the arm of a non-illustrated automatic exchanger device is moved toward the upper die 23 and grips the annular groove 23c of the die 23.

Once, the upper die 23 is gripped, the pusher 21 is driven downwardly by the unclamping cylinder 20 to apply pressure to the head 19a at the top end of the clamping rod 19 to release the die clamping mechanism 22.

Then, while in this position, the upper die 23 can be detached from the upper main shaft 3, as shown in FIG. 2.

When the detaching of the upper die 23 is completed, the lower main shaft 30 is driven upwardly by the lift cylinder 39. Thereafter, the clamp rod 47b is driven downwardly by the clamping cylinder 47 of the die

clamping mechanism 47 to release the lower die 45 via retraction of the clamping claws 47a.

Then, under these conditions, the arm of the unillustrated automatic exchanger device grips the lower die 45. Once the arm grips the lower die, the lower die 45 is detached from the lower main shaft 30 by lowering the lower main shaft 30, in the manner shown in FIG. 3.

Once, removal of the upper and lower dies 23 and 45 is completed, the arm of the unillustrated automatic exchanger device is pivoted so that the next upper and lower dies which are gripped by the arm approach the upper and lower main shafts 3 and 30 in turn attachment of the next dies can be carried out by reversing the detachment procedure. Through this technique dies can be automatically replaced with the next required dies.

Claims 14 to 28

We will not sustain the rejection of claims 14 to 28 under 35 U.S.C. § 102(b).

Independent claim 14 reads as follows:

Sheet working center comprising:
a body;
a work table whereon a sheet to be worked is placed;
means for holding and moving said sheet on said table;
upper and lower tools for working on opposite sides of said sheet at a working level; and
a transfer device for moving said lower tool in a direction perpendicular to the plane of said sheet, said lower tool being mounted in said transfer device which is

> movable along said direction relative to said body, said lower tool being movable by said transfer device to at least the following positions relative to said body
>
> a) a first position below said working level whereat said lower tool is accessible for exchange and/or maintenance;
>
> b) a second position whereat said lower tool is positioned substantially at said working level for cooperating with said upper tool to work on said sheet; and
>
> c) a third position whereat said lower tool is positioned below said working level and movable therefrom to said working level to work on said sheet.

The appellants argue (brief, pp. 10-12; reply brief, pp. 1-3) that Morita fails to disclose each and every element recited in claim 14. Specifically, the appellants assert that the claimed first position and third position of the lower tool is not taught by Morita. We agree. Claim 14 requires that the lower tool be capable of being positioned below the working level (i.e., the claimed first and third positions). Morita's lower tool (i.e., die 45) is not capable of being positioned below its working level (i.e., the position shown in Figure 3 of Morita, wherein the lower main shaft 30 is shown in its lowermost position when the lower tool (die 45) carried by the lower main shaft is at its working level).

Thus, the claimed first and third positions are not taught by Morita.

Since all the limitations of claim 14 are not disclosed by Morita, the decision of the examiner to reject claim 14, and claims 15 to 28 dependent thereon, under 35 U.S.C. § 102(b) is reversed.

Claims 29 to 33

We will not sustain the rejection of claims 29 to 33 under 35 U.S.C. § 102(b).

Independent claim 29 reads as follows:

> In a sheetworking center having a body, a worktable whereon a sheet to be worked is placed, and means for holding and moving said sheet on said table, apparatus comprising:
> upper and lower tools for fabricating said sheet at a working level;
> upper transfer means for driving said upper tool in a direction perpendicular to the plane of said sheet; and
> lower transfer means for driving said lower tool along said direction in alignment with said upper tool to a position below said working level, said lower transfer means further driving said lower tool from said position to said working level for fabricating said sheet.

The appellants argue (brief, p. 12; reply brief, pp. 3-4) that Morita fails to disclose each and every element recited in claim 29. Specifically, the appellants assert that the claimed "lower transfer means for driving said lower tool along said direction in alignment with said upper tool to a position below said working level, said lower transfer means further driving said lower tool from said position to said working level for fabricating said sheet" is not taught by Morita. We agree. Claim 29 requires that the lower tool be capable of being positioned below the working level. As set forth above, Morita's lower tool (i.e., die 45) is not capable of being positioned below its working level (i.e., the position shown in Figure 3 of Morita). Thus, the claimed lower transfer means is not taught by Morita.

Since all the limitations of claim 29 are not disclosed by Morita, the decision of the examiner to reject claim 29, and claims 30 to 33 dependent thereon, under 35 U.S.C. § 102(b) is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 14 to 33 under 35 U.S.C. § 102(b) is reversed.

REVERSED

CHARLES E. FRANKFORT Administrative Patent Judge	)
LAWRENCE J. STAAB Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)

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